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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,259	09/21/2005	Masahiro Hagiwara	Q90407	1176
23373 7590 04/23/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER NAKARANI, DHIRAJLAL S				
ART UNIT		PAPER NUMBER		
1787				
NOTIFICATION DATE		DELIVERY MODE		
04/23/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
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# Office Action Summary

## Application No.

10/550,259

## Applicant(s)

HAGIWARA ET AL.

## Examiner

D. S. Nakarani

## Art Unit

1787

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 9-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS-08)  
Paper No(s)/Mail Date 01/13/2010

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-5 and 9-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed fail to provide support for limitation "the content of the dispersion stabilizer is from 6 to 20.7% by weight, and the concentration of the tin-doped indium oxide fine particles is 10% by weight or more" in claim 1, lines 14-15 and in claim 14, lines 8-9. The Examples 1a, 1b, 1c, 2, 3, 4, 10, 11 and 12 provides support for "the content of the dispersion stabilizer is from 2.7 to 6 parts by weight per 10 parts by weight of tin-doped indium oxide fine particles". The Example 1b provides support "the content of the dispersion stabilizer is 20.7% by weight, and the concentration of the tin-doped indium oxide fine particle is 34.5% by weight". There is no support for the limitation "the content of the dispersion stabilizer is from 6 to 20.7% by weight, and the concentration of the tin-doped indium

oxide fine particles is more than 34.5% by weight". Thus afore said limitation constitute new matter. Furthermore, the Examples 1a, 1b, 1c, 2, 3, 4, 10, 11 and 12, provides support for the dispersion stabilizer comprising: 100 weight parts phosphate ester-based compound, 40 to 200 weight parts of an organic acid (2-ethylhexanoic acid) per 100 weight parts of phosphate ester-based compound and 20 to 300 weight parts of a chelate (acetylacetone) per 100 weight parts of phosphate ester-based compound.

4. Claims 1-5 and 9-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo (U. S. Patent 6,329,061 B2) in view of Kobata et al (U. S. Patent 6,673,456 B1) and Mont et al (U. S. Patent 4,027,069) for the reasons set forth in paragraph 4 of the Office Action mailed August 13, 2009 (Paper Number 20090812). In addition, it would have been obvious to a person of ordinary skill in the art to add dispersion stabilizer comprising a phosphate ester based compound, a chelate and an acid in an amount to prepare a dispersion of tin-doped indium oxide fine particles such so that when the tin-doped indium oxide fine particles dispersion added to interlayer forming composition results in per 100 wt. parts of polyvinyl acetal resin, 0.1 to 3.0 wt. parts of tin-doped indium oxide fine particles (Kobata et al , col. 7, lines 47-50), 0.01 to 1.0 wt. parts of chelate (Kobata et al, col. 9, lines 21-25), 0.01 to 1.0 wt. parts of acid (Kobata et al, col. 10, lines 1-3) and 0.5 or less wt. parts of a dispersant such as silicone oil or phosphate compound (Kobata et al, col. 11, lines 1-24).

5. Receipt of Information Disclosure Statement filed January 13, 2010 is acknowledged and all recited documents have been made of record. Recited non-English Japanese document JP 2002-326846 has been considered to the extent of provided English abstract.
6. Applicant's arguments filed January 13, 2010 have been fully considered but they are not persuasive. In reference to rejection of claims 1-5 and 9-26 under 35 U.S.C. 103(a) as being unpatentable over Kondo (U. S. Patent 6,329,061 B2) in view of Kobata et al (U. S. Patent 6,673,456 B1) and Mont et al (U. S. Patent 4,027,069), applicants mainly argue that Kobata et al's tin-doped indium oxide particles dispersion does not fulfills claimed feature (3). Kobata et al's working Examples has much lower concentration of tin-doped indium oxide particles than that defined in feature (3).

These arguments are unpersuasive because Kondo teaches preparation of dispersion containing 20 weight% tin-doped indium oxide particles in plasticizer and adding to polyvinyl butyral resin with additional plasticizer for making an interlayer. Kobata et al teach claimed additives to prepare tin-doped indium oxide particles in plasticizer. Kobata et al teach addition of a chelate compound improves haze, acid improves dispersion stability and phosphate ester base compound as dispersant. Therefore it is obvious to a person of ordinary skill in the art to add dispersion stabilizer comprising a phosphate ester based compound, a chelate and an acid in an amount to prepare a dispersion of tin-doped indium oxide fine particles such so that when the tin-doped indium oxide fine particles dispersion added to interlayer forming composition

results in per 100 wt. parts of polyvinyl acetal resin, 0.1 to 3.0 wt. parts of tin-doped indium oxide fine particles (Kobata et al, col. 7, lines 47-50), 0.01 to 1.0 wt. parts of chelate (Kobata et al, col. 9, lines 21-25), 0.01 to 1.0 wt. parts of acid (Kobata et al, col. 10, lines 1-3) and 0.5 or less wt. parts of a dispersant such as silicone oil or phosphate compound (Kobata et al, col. 11, lines 1-24). In the present disclosure the interlayer composition, when calculated, comprises 0.2 wt.% tin-doped indium oxide particles, 0.02 wt% phosphate ester, 0.04 wt% 2-ethylhexanoic acid and 0.06 wt% acetylacetone (Example 1a, Table 2-1).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie E. Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/D. S. Nakarani/  
Primary Examiner, Art Unit 1787**

DSN  
April 21, 2010.